

*Qu.* 9. Is not fire a Body heated so hot as to emit Light copiously? For what else is a red hot Iron than fire? And what else is a burning Coal than red hot Wood?

*Qu.* 10. Is not flame a vapour, fume or exhalation heated red hot, that is, so hot as to shine? For Bodies do not flame without emitting a copious fume, and this fume burns in the flame. The *Ignis Fatuus* is a vapour shining without heat, and is there not the same difference between this vapour and flame, as between rotten Wood shining without heat and burning Coals of fire? In distilling hot Spirits, if the head of the still be taken off, the vapour which ascends out of the Still will take fire at the flame of a Candle, and turn into flame, and the flame will run along the vapour from the Candle to the Still. Some Bodies heated by motion or fermentation, if the heat grow intense fume copiously, and if the heat be great enough the fumes will shine and become flame. Metals in fusion do not flame for want of a copious fume, except Spelter which fumes copiously, and thereby flames. All flaming Bodies, as Oyl, Tallow, Wax, Wood, fossil Coals, Pitch, Sulphur, by flaming waste and vanish into burning smoke, which smoke, if the flame be put out, is very thick and visible, and sometimes smells strongly, but in the flame loses its smell by burning, and according to the nature of the smoke the flame is of several Colours, as that of Sulphur blue, that of Copper opened with Sublimate green, that of Tallow yellow. Smoke passing through flame cannot but grow red hot, and red hot smoke can have no other appearance than that of flame.

*Qu.* 11.

*Qu.* 11. Do not longest, their pa great dense and certain degree, e sion and reaction fractions of its ra ter, till it comes that of the Sun? great Earths vel by the greatnels and reaction betv emit, and whose only by their fix density of the At very strongly con pours and exhale

*Qu.* 12. Do n bottom of the E tina? Which vi solid fibres of th the sense of seein their heat a long their heat the lo of a lasting nat along solid fibres stance, for conv made upon all t which can contin Body, can be pr another, supposi motion may not disordered by an